

## Mumbai's Regrow Biosciences develops cell therapy for bone joint disorders

**Opted for at early stage, the therapy could avoid a hip or knee replacement; firm has applied for clinical trials in US, EU**

**Sohini Das | Mumbai September 10, 2018** Last Updated at 17:38 IST



Mumbai-based Regrow Biosciences has developed a cell therapy-based solution to address issues pertaining to the orthopaedic joint.

The company is now looking at raising funds from private equity entities and angel investors to scale up its operations. It has also applied for clinical trials in the European Union and America, with plans to start an office in the US within a year.

Pharmaceutical distributor Yash Sanghavi has bootstrapped his start-up, which has developed products Ossgrow (to treat early-stage avascular necrosis of the hip joint) and Catrigrow (treating cartilage loss in the knees or early stage osteoarthritis) at his laboratory in Lonavala, near Pune. Necrosis is basically death of bone tissue due to interruption in blood supply. Cartilage loss in the knee can occur due to injury or early osteoarthritis.

### **How the therapy works**

Sanghavi says his new process is simple. A bone marrow sample would be taken from the patient and shipped through cold-chain logistics to his

laboratory in Lonavala, where the tissue would be developed and sent back to the hospital. Through simple arthroscopic surgery, the patient's own cells are given back to the affected area that has suffered bone or cartilage damage. Unlike conventional joint implants, Sanghavi says this process is far easier and with no side-effects, as the solution is naturally developed. After the cell implantation, new bone formation has been witnessed. The product is priced at Rs 140,000, at par with joint implants.

Regrow has tied up with major hospital chains and leading orthopaedic surgeons, he says. "Initially, there was a lot of scepticism about our product, as it was a paradigm shift. However, with the positive results of surgeries, doctors have opened up to this alternative solution. In fact, our product was launched last year by none other than Prathap C Reddy, founder-chairman of Apollo Hospitals," Sanghavi said. Both Ossgrow and Cartigrow are priced at Rs 140,000 for a single procedure.

K J Reddy, orthopaedist at Apollo Hospitals in Hyderabad, says the best part of the therapy is that there are no side effects. For, this is a natural solution, developed from the patient's own cells. He adds, however, that Ossgrow and Cartigrow are not alternatives to hip replacement or knee replacement. "These are preventive measures that can be taken, especially in young patients, to stop bone decay or the cartilage loss. Taken at an appropriate time, it can avoid the need to have an implant at a later stage. Once the disease progresses to osteoarthritis, cell therapy does not work," he clarified.

### **How it was developed**

These products have been developed in-house by a team of scientists led by Sanghavi's son, Satyen Sanghavi, who studied stem cell research in Britain. The company applied for patents in India, and got a nod from the country's drug regulator last year. "It took us five years or so to develop the technology and then perform clinical trials. We completed the trials in 2016 and got the licence from the Drugs Controller General of India (DCGI) the following year," he elaborates. It is the only licensed firm in the world to be performing such cell therapy solutions for orthopaedic cases, Sanghavi claims.

Regenerative Medical Sciences Pvt Ltd, which had developed cell therapy-based products for knee joint and hip joint disorders, has since transferred the product rights to Regrow Biosciences. The latter was registered around six months earlier.

### **Investment and market potential**

Around Rs 800 million has been invested in the start-up so far. Sanghavi said they were looking at raising another Rs 500-600 mn in the near term, to scale up. The Lonavala laboratory has a capacity to develop cell therapy solutions for around 3,000 patients a year. So far, Regrow has handled around 200 cases.

Sanghavi claims Ossgrow can address 10-20 per cent of the market of hip replacement in this country. Around 108,000 cases of total hip replacement take place in India every year. Similarly, of the total of 140,000 knee replacement cases, Cartigrow's target audience is around 35,000.